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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/779,449

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Chae-Sung Jung

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EXAMINER

PRABHAKHER, PRITHAM DAVID

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/779,449	Applicant(s) JUNG, CHAE-SUNG	
	Examiner PRITHAM PRABHAKHER	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/28/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

Claims 1-2 and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoki et al. (US Patent No.: 6947601B2) and further in view of Liu et al. (US Pub No.: 20040001146A1) and Zahavi (US Patent No.: 7184574B1)

*Regarding **Claim 1**, Aoki et al. teach of a communication terminal apparatus having a camera (54) for transmitting a captured image to a communication terminal of a called party (50-2), and having a display for displaying an image received (Display 56 in Figure 3) from the called party's communication terminal thereon so the apparatus establishes a video communication with the called party (See **Figures 2 and 3**), the apparatus comprising:*

*a transmission/reception unit for performing data transmission/reception for the video communication (**Figures 2, 3 and Figure 17** show a transmission/reception unit (terminal) for performing data reception/transmission for video communication);*

*a tracker for detecting a user's face area from an image captured by the camera (Figure 18 shows a Face Part Position Detector(5036) for detecting a users face captured by the camera 502, **Figures 17 and 18**);*

*an image extractor (CPU 516B) for extracting pixels of a predetermined range covering the user's face area detected by the tracker (The CPU 516B pulls out pixels (extracts pixels) based on the size and position of the user's face (predetermined range covering the user's face area) detected by the face part position detector 5036 (tracker), **Figure 18, Column 16, Lines 14 et seq. and Column 17, Lines 1 et seq.**);*

a display with a display screen for displaying an image received at the transmission/reception unit (Display 53 in Figure 3); and

*a controller (made up of Preprocess 503B and CPU 516B in Figure 17) for determining whether a setup shot mode is set to a self-view mode for capturing the image (mode in which the user can capture their own image using camera 502 in Figure 17), controlling the shot mode of the camera at the self-view mode when the setup shot mode is set to the self-view mode (Preprocess 503b controls the image captured by the camera 502, **Figure 17**), and controlling the transmission/reception unit (unit 500B) to transmit an image to the called party's communication terminal (The image is enlarged or reduced to fit the screen of the hand-held device by the image enlarging and reducing unit 5037 and extractor 5038. It is then sent out of the preprocess 503B via the control of the CPU 16B and out the transmission circuit 507 (transmits image to called party), **Figures 17, 18**).*

Aoki et al. do not teach or specifically disclose a distortion corrector for correcting a distortion of angle of view in the pixels extracted by the image extractor when the camera captures an image. Aoki et al. also fail to disclose transmitting an image having no distortion of angle of view through the distortion corrector to the called

*party's communication terminal. Liu et al. teach of correcting distortion of an angle of view in the pixels extracted during the capture of an image in real-time, **Paragraph 0010-0012, 0050 and 0057-0059 of Liu et al.** It would have been obvious to one of ordinary skill in the art at the time of the invention to correct for the distortion of an angle of view and transmit these corrected images to the called party's terminal, because this helps alleviate distortion and perception problems associated with distorted images, **Paragraph 0009 of Liu et al.***

*Aoki et al. and Liu et al. do not disclose controlling the display to display the image at a center of the display screen. Zahavi discloses tracking an object to be imaged and displaying the sensed object at the center of the field of view of a display, **Column 1, Line 55 to Column 2, Line 3 of Zahavi et al.** It would have been obvious to one of ordinary skill in the art at the time of the invention to display the image tracked by Aoki et al. at the center of the display screen as taught by Zahavi, because this would have given priority to the tracked image. It would have simply been a preferential choice in priority as to what image the user would chose to center, and it would have further been obvious to one of ordinary skill in the art at the time of the invention to rearrange the images disclosed by Aoki et al. accordingly.*

*Regarding **Claim 2**, Aoki et al. and Liu et al. disclose the apparatus as set forth in claim 1, wherein the tracker detects a center point of the user's face area extracted from the captured image of the camera (CPU 516B extracts the center point of a users face from the captured image, **Column 2, Lines 53 and 54 and Column 16, Lines 14 et***

*seq.), and the image extractor extracts predetermined pixels covering the user's face area on the basis of the center point of the user's face area, and constructs a screen image using only the extracted pixels (Image enlargement and reducing units (5037 and 5038) makes sure the pixels for the image extracted by the CPU, once the camera captures the image, are cut to fit the monitor screen. All displayed images are constructed using only the specified extracted pixels of the users face, **Figures 17-24 and Column 17, Lines 4 et seq. and Column 18, Lines 60-61 of Aoki et al.**).*

*Method **Claims 6-7** correspond to apparatus claims 1-2. Therefore, method claims 6 and 7 are analyzed and rejected as previously discussed with respect to apparatus claims 1 and 2.*

Claims 3-5 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoki et al. (US Patent No.: 6947601B2), Lieu et al. (US Pub No.: 2004/0001146A1) and Zahavi (US Patent No.: 7184574B1) as applied to claims 1,2,6 and 7 above, and further in view of Hiroaki (US Patent No.: 5786846).

*Regarding **Claim 3**, Aoki et al., Lieu et al. and Zahavi disclose the apparatus as set forth in claim 2, wherein the controller (503B and CPU 516B) determines whether the user's face area detected by the tracker (5036) is in a prescribed allowable range (The preprocess 503B makes sure that the users face has a preset size (allowable range), **Figures 17-24 and Column 2, Lines 40-47 of Aoki et al.**), determines whether a user's face area corresponding to the pixels corrected by the distortion corrector (as*

taught above by Lieu et al.) is in a prescribed allowable range (Lieu et al. teach that images captured by the camera are corrected for distortion and are within an allowable range (proper field of view) as taught above in claim 1).

*However, Aoki et al. do not teach that if at least one of the user's face area detected by the tracker is outside of the prescribed allowable range, the controller controls the transmission/reception unit to prevent the image having no distortion of angle of view (black screen) from being transmitted. Hiroaki teach that if a subject to be captured moves out of a prescribed allowable range of the camera, a non-display image (no image) is transmitted to the display screen of the other user, **Column 16, Lines 53 et seq. and Figure 14 of Hiroaki**. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate into the display of Aoki et al. a black/blank screen of Hiroaki when the users face (object) was outside of an allowable range of the tracker/camera, because this allows the users to be unconscious of the camera directly and enables the users to focus more on conversation, **Column 17, Lines 1 et seq. of Hiroaki**.*

*With regard to **Claim 4**, Aoki et al., Lieu et al., Zahavi and Hiroaki teach of the apparatus as set forth in claim 3, further comprising:*

an alarm signal generator (notification information output section 502 in Figure 5 of Hiroaki) for generating an alarm signal recognizable to the user upon receiving a control signal from the controller,

wherein, if at least one of the user's face area detected by the tracker is outside of the prescribed allowable range, the controller controls the alarm signal generator to

*output the alarm signal. If the object is out of the field of view of the camera, the alarm section 502 sounds an alarm, **Column 13, Lines 1-25 of Hiroaki**. It would have been obvious to one of ordinary skill in the art at the time of the invention to output an alarm signal if the user's face area was outside a prescribed allowable range because this alerts users who have visual disabilities that they are outside the allowable tracking range, **Column 13, Lines 1-25 of Hiroaki**.*

*Regarding **Claim 5**, Aoki et al., Lieu et al., Zahavi and Hiroaki teach of the apparatus as set forth in claim 4, further comprising:*

*a storage unit for storing the image displayed on the display according to a control signal of the controller (503B has memory that stores the images that are to be displayed on the display, **Figure 18 of Aoki et al.**).*

*Method **Claims 8-9** correspond to apparatus claims 3-4 and are therefore analyzed and rejected as previously discussed with respect to apparatus claims 3-4.*

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PRITHAM PRABHAKHER whose telephone number is (571)270-1128. The examiner can normally be reached on M-F (7:30-5:00) Alt Friday's Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571)272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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